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ABSTRACT

The impact of mobility on academic achievement has been the focus of many studies. The findings are generally consistent and suggest that mobility lowers student achievement, particularly when the students are from low-income, less educated families. For this study, 30 students, classified as either mobile or stable, were randomly selected from a population of 110 sixth graders at a public school on the southwest side of Chicago (Illinois), a predominantly low and low-middle socioeconomic community. Reading and math scores from the annually administered Iowa Tests of Basic Skills were compared for the two groups. Results showed that students who remained at the school from first grade through sixth grade did not obtain significantly higher reading and math achievement scores than sixth grade students who had transferred one or more times since first grade. Analysis did show slight gains for students who had attended the school 5-6 or 3-4 years versus 1-2 years. These results contradicted those expected after a review of the literature. Continued study with a larger sample is necessary, and stratified sampling is recommended to control for extraneous variables. Recommendations to assist transfer students and their teachers include: (1) allowing students who move to continue to attend their original school, if reasonable; (2) implementing orientation programs for transfer students; and (3) maintaining portfolios of classwork that transferring students can take with them to a new school. (Contains 15 references.) (SD)

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The Effect of Student Mobility on Academic Achievement

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July 30, 1996

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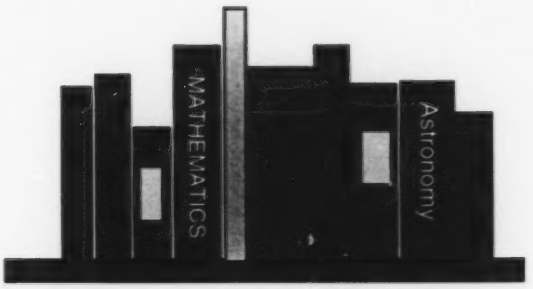

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The effect of student mobility on academic achievement?

Dolores A. Evans

Mobility issues used to be associated with only military families and migrant workers but today many urban areas have begun to identify mobility as an educational concern. Although moving to a new apartment or new home can be a positive time of life for many people, frequent moves due to shortages of affordable housing, changes in marital status and unemployment means that students are all too often moving from school to school. According to the GAO (U.S. General Accounting Office) Report (1994), the United States has one of the highest mobility rates of all developed countries; annually, about one fifth of all Americans move. The rate of transiency in the schools has alarming implications for the growth and education of millions of children, of whom the homeless have become a part of the picture, and has created a major crisis for teachers, schools, parents and citizens (Dohrn, 1991). For whatever the reason, those children who frequently find themselves at new schools, face additional challenges succeeding academically.

Students, while adjusting to the new neighborhood and making new friends must also adapt to a new teacher, new school, new principal. Quite often when a student enters a classroom during the middle of the year the curriculum and textbooks are quite different from the last school he attended. The teacher on the other hand finds it necessary to reteach material or find others ways to assist the new student in catching up with his new classmates. New students create other management problems for the teacher and depending on the number of new students that teachers must deal with, the management problems increase accordingly. Thus, it is not only the students who face disruption and increased difficulty in achieving success but teachers are faced with additional problems that are caused by student mobility. In addition, attempts to monitor school performance become meaningless if the student population tested one year has largely changed by the next.

On a local level, Randolph School had a mobility rate of 21.4% (1992-93), the rate lowered to 17.8% (1993-94) and the lowered again to 10.3% (1994-1995). The District (Chicago Public Schools) mobility rate was 33.5% (1992-93), 32.8% (1993-94), and 26.3% (1994-95). The mobility

rate for the State of Illinois was 20.4% (1992-93), 20.0% (1993-94), and 18.8% (1994-95) as reported in the Randolph School Report Card. The student mobility rate is based on the number of times students enroll or leave a school during the school year. Although Randolph's mobility rate was lower than the City's average, as well as the State's average it may still be a factor that contributes to low achievement. It is important for educators to take note of any and all factors that affect academic achievement and include plans to implement programs that address these factors. Results from this study and those like it, which may give some indication of changing factors that impact on academic achievement, provide educators and administrators with needed information in which to make decisions as they attempt to improve the educational programs in our schools.

The impact of mobility on academic achievement has been the focus of many studies. The findings are, for the most part, consistent. Most studies suggest that mobility lowers student achievement - particularly when the students are from low-income, less educated families (Ingersoll, 1988; Cleveland Public Schools, 1989; Lash, 1990; Brent & DiObilda, 1993; Hefner, 1994; U.S. General Accounting Office, 1994; Mehana, 1995; U.S. Department of Educational Research and Improvement, 1996). To the contrary, studies have found that mobility does not make a significant difference in students' academic achievement (Adduci, 1990) and Paredes (1993) acknowledged that although mobility may not cause lower achievement, it is one factor in students' lives that can negatively affect learning.

A report from the U.S. Department of Education Office of Educational research and Improvement (1996) noted:

> Adjustment can be difficult for students who change schools often. Many poor families experience a high incidence of mobility that can result from a lack of marketable skills, fluctuations in the job market, or a lack of affordable housing. And frequent moves for families mean frequent school transfers for their children. Research confirms that students who change schools frequently, particularly students from low income families, are absent more often, are less likely to perform well in school, and are more likely to leave school without graduating than those who change schools infrequently or not at all. In fact, migrant students, the most mobile of all, rank among those with the highest school failure and dropout rates in the nation. (page 1)

The GAO Report (1994) examined the characteristics of children in the United States who change schools frequently, their success in school relative to children who have never changed schools, and the help that federal education programs and policies can provide. This was quite an extensive study involving over 15,000 third graders across the nation from 235 elementary schools, and input from their teachers, parents and principals. Data from the "Department of Education's Prospects Study database was used because it provided data on mobility and other factors (The Department of Education's longitudinal study of Chapter 1, 1990-1991). The Prospects Study contained two primary measures of children's mobility: (1) the number of schools attended since starting first grade and (2) the number of times the child changed schools during the school year 1990-1991. The Prospects Study included a national stratified sample of elementary school children in the first, third, and seventh grades. The GAO analyzed the data on the third graders (instead of the seventh graders) to avoid groups of students who may change schools because the school only goes to fifth or sixth grade. The data were collected using a sample that was stratified by census region and three levels of urbanization. Some of the findings from the GAO Report were:

(1) seventeen percent of all third graders have changed schools frequently, that is, have attended three or more schools since the beginning of first grade; twenty-four percent of third graders have attended two schools; the remaining 59 percent remained at the same school since first grade

(2) inner city and low-income children are much more likely to change schools frequently

(3) children who change schools frequently are more likely to be low achievers (below grade level in reading and math) and repeat a grade than children who do not change schools frequently

(4) third graders who change schools frequently are more likely than those who have never changed schools to be below grade level in reading, regardless of income

(5) third graders who change schools frequently are more likely than those who have never changed schools to have repeated a grade, regardless of income

Also included in the GAO Report were two case studies of schools with high mobility rates; a school in Maryland and a similar school in California. This part of the study was done to determine the effects of

the children's mobility on the school's ability to provide educational services. Three of the concerns or problems that teachers identified were; changing schools interferes with classroom instruction, increases noninstructional tasks, and transfers are not sent in a timely manner.

Geographic mobility was suggested to have a negative effect on a student's overall academic achievement in a study in Denver (Ingersoll, 1988). Data were drawn from Denver Public Schools, a multiethnic urban school system of over 60,000 students. Composite ITBS scores for the elementary grades and TAP scores for the high school grades served as the dependent variable for the analysis. Student mobility was defined by student enrollment patterns. Three groups of continuing students (stable) and two groups of newly entered students were analyzed. One of the findings was that achievement levels of the more stable groups were consistently higher than those of students in the more mobile groups. Also, attempts to control for student socioeconomic status did not alter the correlation between mobility and achievement.

Cleveland Public Schools (1989) examined the differences between stable students and more mobile students during the 1987-1988 school year. This study found stable students more likely to have a higher achievement scores in the following areas: CAT Reading Comprehension NCE Score, CAT Reading Vocabulary NCE Score, Reading Competency mastery rate and CAT Math Computations NCE Score. The study also found that stable students were likely to have slightly higher scores in the following areas; CAT Math Concepts and Applications NCE score and CAT Math Test NCE score. Also the stable students were more likely to be promoted, more likely to have not dropped out of school and likely to have a lower percent of total suspension days.

Brent and DiObilda (1993) studied the effect of curriculum alignment versus direct instruction on second graders in Camden, New Jersey. An added factor to their study was the effect of student mobility on achievement. The achievement of mobile students was compared with the achievement of stable students. Stable students were identified as those second graders who had been in the program for at least two full years. Stable students scored higher than mobile students on total reading, word attack, vocabulary, comprehension, and total battery. They found no significant difference in the total mathematics scores. In this study and Mehena's (1995) it appears that reading ability is more affected by

continuity of instruction than is mathematics or language abilities.

In Chicago, Hefner (1994) examined the effect of mobility on a group of fifth graders at the Tonti Elementary School located on the city's southwest side not very far from the Randolph School. This study compared a group of 15 mobile students who had transferred twice or more during their school years to a group of 47 students (labeled the non-mobile group) who had transferred less than two times. Iowa test scores were compared for both groups using their fourth grade scores and their fifth grade scores. Examination of the ITBS scores indicated that there was a significant difference of a score of 1.1 in reading achievement.

Another study, Mehana (1995), also in Chicago uses 81% of a sample used in an earlier study with 1,539 students who attended government-funded kindergarten programs in 26 Chicago Public Schools in 1986. Mehana uses 988 of those students, sixth graders at the time, to investigate the predictors of school mobility and the influence of mobility on grade 6 math and reading achievement. When children were classified into high-, low-, and non-mobility groups, high-mobility predicted reading achievement. Children who moved 3 or more times were three months behind in reading achievement than those who didn't. The average child in the high mobility group had a lower score than 58% of all the children in the non-mobility group. High mobility did not predict math achievement.

Yet there are some studies where the data do not support the claim that mobility affects academic achievement of students (Adduci, 1990). A study of 198 tenth graders was conducted to determine the impact of student mobility on academic achievement in a small urban area of New Jersey located within the metropolitan New York area. Student mobility was measured in three ways; by the number of consecutive uninterrupted years in the district, the number of moves, and the distance of the move. Forty-seven percent of the sample had been enrolled in the district schools for three years or less, while 24 percent of the sample were enrolled in the district for ten years. One hundred twenty-three students (62%) had one transfer, fifty-four had no transfers (27%) and the remaining twenty-one students (11%) had two or more transfers. The results indicated a high degree of mobility, and that mobility did not affect student achievement. Thus, the study indicated, the number of consecutive years spent in the district as a measure of student mobility

is not a powerful predictor of HSPT (High School Proficiency Test) scores.

Another study revealed that mobility alone may not cause lower academic achievement but is a factor in students' lives that can negatively affect learning (Paredes, 1993). This study was done in the Austin (Texas) Independent School District and sought to explore factors associated with the rate at which students move from one school community to another. While seeking to identify the demographics of mobile students, the study also examined the relationship between student mobility and achievement. Results of the data analysis indicate a strong relationship between low-income status and mobility. Findings also indicated that students with the higher number of moves had lower mean grade equivalents but the research does not indicate clearly if mobility or low income status is the cause for the lower achievement.

In an article in the Chicago Tribune newspaper titled, "School Statistics Can Be Misleading," the authors noted:

> The high levels of student mobility in Chicago make any judgments about school improvement on the IGAP especially problematic. The citywide elementary school mobility rate is 37 percent.
> Professor Robert Meyer of the Harris School of Public Policy at the University of Chicago conducted a careful analysis of the use of results from testing programs such as the IGAP. His empirical results yield a startling finding. Individual schools can actually be making improvements in student learning, but these gains can be totally obscured by student mobility and other factors. In some cases, the IGAP test score reports for a school could indicate declining student achievement, even though the school is having a very positive impact.

Thus, mobility can be viewed as having a negative impact on student achievement as well as having a negative impact on schools when reporting and comparing test results.

According to most of the research on the relationship between mobility and academic achievement, researchers seem to agree that mobility does have a negative impact on students. The research does not, however, provide adequate information as to what can be done by a school system to minimize the negative impact on academic achievement. Lash & Kirkpatrick (1990), suggest that student mobility deserves more attention

from researchers and educators as a factor affecting instruction, classroom management, and learning. In the absence of school programs, the responsibility for working with children who move rests with the teacher. Steele (1994) studied schools in the Chicago area and discovered that there were few schools that offered orientation programs to help students become academically and socially acclimated. He also has found that transfer students experience serious problems in adjustment and indicates that the parent's role is critical. He suggests tutoring for transfer students, in addition to school wide programs that provide a buddy for the new student and also includes the school community representative and social worker reaching out to the transfer student's family.

Ascher (1991) lists several suggestions for facilitating the acclimation of new students: (1) parent education programs and handbooks that acquaint new parents with the effects of moving on their children, and with the procedures and customs of the new school, (2) reception committee and school tour guides, (3) inservice training for teachers in schools with highly mobile students, and (4) classroom buddies for the new students. These suggestions certainly are only a beginning to what researchers and educators need to do to address the issue of mobility.

Procedures

The population for this study included 110 sixth grade students from the A. Philip Randolph Public School. Randolph School, with a total enrollment of approximately 1250 students, is located on the southwest side of Chicago on the edge of the Englewood Community, a predominantly low and low-middle socioeconomic community. About 85% of the students qualify for free or reduced lunch and are considered low-income according to the Illinois School Report Card. About 120 Arab students are bused to Randolph school and the remaining students are Afro-Americans.

Of the 110 sixth grade students, seven were excluded for lack of test scores. The remaining 103 students were grouped into two groups, according to information from school records as to how many years they attended Randolph School:

6 years - 47 students	4 years - 9 students	2 years - 9 students
5 years - 15 students	3 years - 16 students	1 year- 7 students

Thirty students were randomly selected from the subpopulations, mobile and stable students, to form the sample.

Group I - (Mobile Students) Sixth grade students who have attended Randolph School for 1 - 5 years

Group II - (Stable Students) Sixth grade students who have attended Randolph for 6 years

Each spring the Iowa Tests of Basic Skills (ITBS) are administered to each student in the Chicago Public School System. The reading and math results of the ITBS administered during the Spring of 1996 school year were used in this study. The posttest only control groups design was employed in this study.

Iowa Tests of Basic Skills; 1994 edition edition; Level 12, Form 7. The within grade Kuder-Richardson twenty reliabilities for the eleven subtests and total scores are high, generally greater than .85, with many exceeding .90. The K-R twenty reliability of the composite score for each level of the test is .98. The intercorrelations between subtests are lower than correlations between total scores, with the former ranging from the mid .50s to the mid .70s with the most in the .65 area, and the latter being in the .70 to .85 range. Approximately 35 to 50 percent of the variance between any two subtests is shared. The variance between any two of the vocabulary, reading, language, study skills or mathematical total score is shared in the 50 to 70 percent range.

Findings

The samples for the study included sixth grade students of Randolph Elementary School. Each Spring students take the Iowa Tests of Basic Skills (ITBS). From these sixth grade students, two groups were randomly selected. Subjects in one group were sixth grade students who attended Randolph School from 1 - 5 years, while students in the other group were students who attended Randolph School since first grade - 6 years. Results from the 1996 ITBS reading subtest and mathematics subtest (total score) were used as a posttest. A t test ($p<.05$) was done on both sets of scores to determine if there was a statically significant

difference in the reading and math achievement of those mobile students and those students who were identified as stable. Table 1 summarizes the statistical analyses for the reading achievement and Table 2 summarizes the statistical analyses for the mathematics achievement.

Examination of the 1996 mean posttest scores indicate that the groups were not significantly different. The students from the mobile group had a mean of 5.06 in reading achievement and the stable group had a mean of 5.87. The calculated t score was .9056 and the table t score was 2.00; thus showing no significant difference. The students from the mobile group had a mean of 5.63 in mathematics (total score) and the stable group had a mean of 5.60. The calculated t score was .04 and the table t score was 2.00; thus again showing no significant difference. These findings permit the conclusion that there is no significant difference in the reading achievement of the sixth grade students who have remained at Randolph School for six years and those who have transferred one or more times.

Table 1 - Reading

Posttest Means, Standard Deviations and t Tests for Group I and Group II for Reading Achievement Scores

	Group I - Mobile n=30	Group II - Stable n=30
Mean	5.06	5.87
Standard Deviation	1.95	2.04

t = .9056

.9056< 2.000

df = 58

*Significant at the .05 level

Table 2 - Mathematics

Posttest Means, Standard Deviations and t Tests for Group I and Group II for Reading Achievement Scores

	Group I - Mobile n=30	Group II - Stable n=30
Mean	5.63	5.60
Standard Deviation	1.67	1.63

t = .04

.04< 2.000

df = 58

*Significant at the .05 level

The data lead to the acceptance of the null hypothesis: Sixth grade students who remained at Randolph School from first grade through sixth grade will not obtain significantly higher reading and math achievement than sixth grade students who transferred one or more times since first grade. The results are surprising in that the review of literature overwhelmingly supports the theory that mobility has a negative impact on achievement.

Table 3 and Table 4 were prepared to compare the reading and math achievement scores of the sixth grade students by the number of years they attended Randolph School, grouped differently than those students in Table 1 and Table 2. Table 3 refers to reading achievement and the mean scores of students was calculated for students attending Randolph for 1-2 years, 3-4 years, and 5-6 years. There is a very slight gain in achievement in reading and math for students attending Randolph for 3-4 years as compared with those students only attending 1-2 years. Also for students attending 5-6 years the achievement scores are higher in reading and math than those students attending for 3-4 years and even more so than those attending 1-2 years.

Table 3

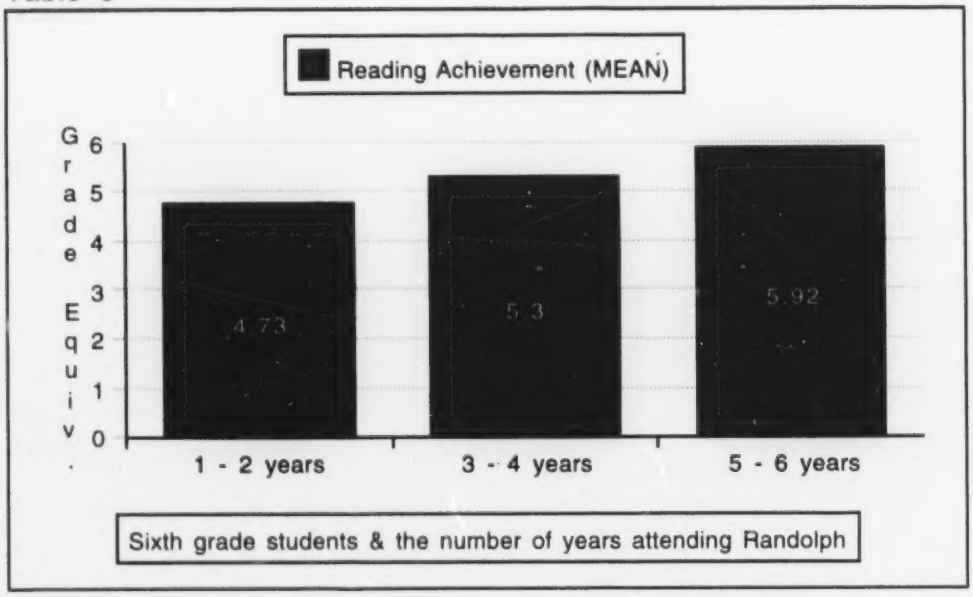
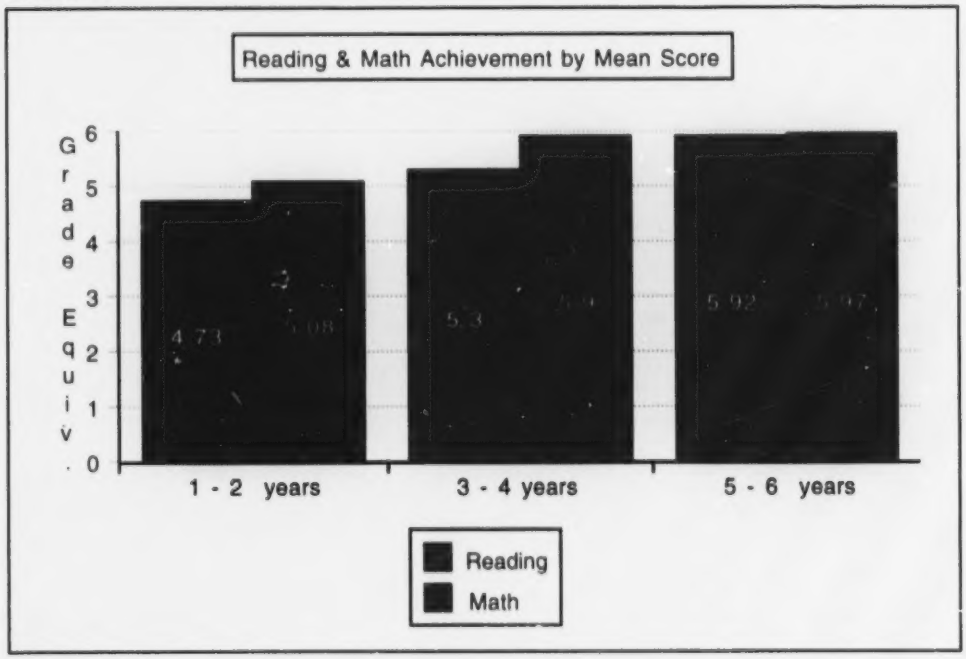


Table 4



Conclusions:

The results of this study are not consistent with the findings and opinions of Ingersoll (1988), Cleveland Public Schools (1989), Lash (1990), Brent & DiObilda (1993), Hefner (1994), GAO (1994), Mehana (1995) and the Department of Educational Research and Improvement (1996). The results are, however, consistent with Adduci (1990) and Paredes . Other variables such as attendance, home environment factors, free-lunch eligibility as a measure of socioeconomic status, language and cultural differences were not controlled with the sample used in this study.

The sample size for this study was small in comparison with several of the studies cited. The GAO (1994) study included over 15,000 third graders. The Ingersoll (1988) study drew from a population of over 60,000 students in the Denver Public Schools. The Cleveland Public Schools' (1989) study also drew from a very large data base, as did Lash & Kirkpatrick (1990). Mehana (1995) used almost 1,000 students in her study on mobility and sixth grade students. On the other hand, Adduci (1990) used a sample of 198 tenth graders which was slightly higher than the sample in this study with findings of no statistical significance.

This study points to the need to continue such research utilizing a much larger sample. The National Education Goals Panel has recommended a voluntary student record system, even if students move among schools. Thus, issues related to the mobility of all children have reached national prominence on the educational policy agenda (GAO, 1994) along with developing and adopting high standards in school subjects for all children. Further refinement of the study by stratified sampling may indicate different results for different age groups, students of different sex, different ethnic backgrounds, or students with different family structure. The results of this study might have been different if the researcher had more control on method of data collection and if the population had been significantly larger, thereby, allowing more control of extraneous variables.

Recommendations:

1. Students who move and wish to continue attendance at the same school should be able to do so as long as the parent agrees to provide transportation and students continue to arrive in a timely manner.

2. Orientation programs for transfer students should be implemented in all schools but especially in those schools with a high mobility rate (and classroom buddies for new students).

3. Transfer students who have difficulty adjusting academically to the new school's curriculum should be identified and provided with tutorial services.

4. It would be helpful for teachers who work with mobile populations to be knowledgeable about the various curricula that teachers in other schools use at the same grade level (Lash & Kirkpatrick, 1990). On a local level, it would be helpful if all schools were "somewhat" consistent in terms of the curriculum taught at each grade level.

5. Teachers should maintain folders or portfolios of students class work. Transferring students could take the folders to the new school and teacher. Specific curricular information that teachers need to assess and place students can then be available immediately on enrollment (Lash & Kirkpatrick, 1990).

6. Parent education programs and handbooks that acquaint new parents with the effects of moving on their children (Ascher, 1991).

7. Recommendations for further research:
    a. larger sample/population
    b. use raw scores
    c. use analysis of co-variance

References

Adduci, Lynne L. (1990) Mobility and Student Achievement in Orange High School. Eric Document Reproduction No. ED374 920.

Ascher, Carol, Highly Mobile Students: Educational Problems and Possible Solutions (1991) Eric Document Reproduction No. ED338 745.

Bryk, Anthony and Easton, John (1994) "School Statistics Can Be Misleading," Chicago Tribune, Jan. 1994.

Brent, George and DiObilda, Nicholas, Effects of Curriculum Alignment Versus Direct Instruction on Urban Children Journal of Educational Research , Vol. 86 No.6 (July-Aug 1993).

Dohrn, Bernadine A Long Way From Home: Chicago's Homeless Children and the Schools (1991) Eric Document Reproduction No. ED 378 250.

Elementary School Children; Many Change Schools Frequently, Harming Their Education. Report to the Honorable Marcy Kaplur, House of Representatives. General Accounting Office, Washington, D.C. Div. of Human Resources. (Feb 1994)

Hefner, Mary What Is the Effect of the Rate of Transfer on the Academic Achievement of Fourth Grade Students (1994) Eric Document Reproduction No. ED364 866.

Ingersoll, Gary M. Impact of student mobility on student achievement in an urban setting Paper presented at the Annual Meeting of the American Educational Research Association. Eric Document Reproduction No. ED297/072.

Lash, Andrea and Kirkpatrick, Sandra (1990) A Classroom Perspective on Student Mobility, The Elementary School Journal, Vol. 91, Number 2.

Mehana, Majida and Reynolds, Arthur J. (1995) The effects of School Mobility on Scholastic Achievement. Paper presented at the Biennial Meeting of the Society for Research in Child Development. Eric Document Reproduction No. ED385 381.

Nurturing Young Learners U.S. Department of Education Office of Educational Research and Improvement, (May 1996).

Paredes, Vicente (1993) A study of Urban Student Mobility. Eric Document Reproduction No. Ed359 282.

Steele, Jeffrey (1994) Transfer students' problems get a closer look. Chicago Tribune

Student and Teacher Mobility: Impact on School Performance in New York City Public Schools, (1992) New York State Education Department, Office for Planning, Research and Support Services. Eric Document Reproduction No. Ed 352 432.

Student Stability: Some Relationships between Student Stability and Other Selected Variables for 1987 - 1988. (1989) Cleveland Public Schools Research Report. Eric Document Reproduction No. ED331 942.